

AMENDMENTS TO THE CLAIMS

1-2. (canceled)

3. (currently amended) A recombinant nucleic acid comprising a nucleic acid that hybridizes to a nucleic acid having a sequence selected from the group consisting of the sequences or full-length complement of the sequences, shown in SEQ ID NOs: 8, 10, 12, 14 and 16, under the high stringency conditions of washes at 0.1XSSC at 65°C for 2 hours.

4. (previously presented) A recombinant nucleic acid comprising DNA having a sequence identical to a nucleic acid having the sequence selected from the group consisting of SEQ ID NOs: 8, 10, 12, 14, and 16.

5. (original) An expression vector comprising transcriptional and translational regulatory nucleic acid operably linked to the nucleic acid of claim 3 or 4 encoding an *Haemophilus* adhesion and penetration protein.

6. (original) A host cell transformed with an expression vector of claim 5.

7. (previously presented) A method of producing an *Haemophilus* adhesion and penetration protein comprising:

- a) culturing a host cell transformed with the expression vector of claim 5; and
- b) expressing said nucleic acid to produce an *Haemophilus* adhesion and penetration protein.

8-17. (canceled)

18. (currently amended) ~~The recombinant nucleic acid of claim 17, wherein said nucleic acid comprises~~ A recombinant nucleic acid encoding an *Haemophilus* adhesion and penetration protein comprising DNA having a nucleic acid sequence at least 90% identical to a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 8, 10, 12, 14, and 16, wherein said nucleic acid encodes an amino acid sequence selected from the group consisting of SEQ ID NOs: 9, 11, 13, 15, and 17, respectively.

19. (currently amended) The recombinant nucleic acid of claim ~~17~~ 18, wherein said nucleic acid comprises DNA having a nucleic acid sequence at least 95% identical to a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 8, 10, 12, 14, and 16.

20. (currently amended) The recombinant nucleic acid of claim ~~17~~ 18, wherein said nucleic acid comprises DNA having a nucleic acid sequence at least 98% identical to a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 8, 10, 12, 14, and 16.